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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,302	05/29/2001	Nathan F. Raciborski	19396000510	7339

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EXAMINER

PARTON, KEVIN S

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 05/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/870,302

Applicant(s)

RACIBORSKI ET AL.

Examiner

Kevin Parton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2-6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the phrase "According to the invention," is not necessary. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 5-8, and 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Gurijala et al. (USPN 6,601,090).
5. Regarding claim 1, Gurijala et al. (USPN 6,601,090) teaches a content exchange system for caching content objects, the content exchange apparatus comprising:

- a. A content store comprising a plurality of content objects (column 4, line 67).
 - b. A content tracker that determines the content objects stored in the content store (column 4, lines 51-53; column 5, lines 42-50).
 - c. An origin server database comprising a list of origin servers associated with the content exchange (column 5, lines 42-50; column 6, lines 36-39).
 - d. A catalog of content objects stored in the content store (column 5, lines 1-4, 45-49; column 6, lines 36-39).
6. Regarding claim 5, Gurijala et al. (USPN 6,601,090) teaches all the limitations as applied to claim 1. They further teach means wherein:
 - a. The content store is divided into a first section and a second section (column 6, lines 4-15, 50-62). Note that the content store may have any number of logically separations for maintaining data.
 - b. The first section comprises a cache where less frequently requested content objects are purged in favor of more frequently requested content objects (column 6, lines 4-15, 50-62).
 - c. The second section comprises a file system where content objects remain stored in the content store for a period of time regardless of request frequency (column 6, lines 4-15, 50-62).
7. Regarding claim 6, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 1. They further teach a content controller, wherein the content controller

finds a requested content object not presently retained in the content store (column 5, lines 25-40).

8. Regarding claim 7, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 1. They further teach a content controller, wherein the content controller finds a requested content object not presently retained in the content store on one of: another content exchange and the origin server (column 5, lines 25-40).

9. Regarding claim 8, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 1. They further teach an information repository comprising status information related to the content exchange (column 5, lines 42-50; column 6, lines 36-39).

10. Regarding claim 15, Gurijala et al. (USPN 6,601,090) teach a system for caching content objects in a content exchange with means for:

- a. Storing content objects requested from the content exchange (column 4, line 67).
- b. Receiving information about an origin server from that origin server (column 5, lines 45-50).
- c. Storing the information in a database (column 6, lines 36-38).
- d. Determining a network address for the origin server using the database (column 5, lines 45-50).
- e. Contacting one of the origin server and another content exchange when a content object request results in a cache miss (column 5, lines 25-41).

11. Regarding claim 16, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means wherein the database comprises an origin server identifier and an origin server address for each associated origin server (column 5, lines 45-50; column 6, lines 36-38).

12. Regarding claim 17, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means wherein the storing step comprises a step of storing an origin server identifier and an origin server address for each associated origin server (column 5, lines 45-50; column 6, lines 36-38).

13. Regarding claim 18, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means wherein the determining step comprises a step of querying the database for an origin server address associated with a provided origin server identifier (column 5, lines 15-50).

14. Regarding claim 19, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means for:

- a. Determining if any other content exchange has at least a portion of the content object (column 5, lines 16-25).
- b. Requesting the portion if the portion is found on any other content exchange (column 5, lines 16-50).
- c. Requesting the portion from the origin server if the portion is not found on any other content exchange (column 5, lines 16-50).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 2-4 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gurijala et al. (USPN 6,601,090) in view of Chase (EP 0877326A2).

17. Regarding claims 2 and 10, although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention (as applied to claims 1 and 9, respectively), it fails to disclose means wherein the list of origin servers is modified to exclude a particular origin server when a determination is made that the particular origin server is no longer available.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching on a network wherein the list of origin servers is modified to exclude a particular origin server when a determination is made that the particular origin server is no longer available (figure 4, element 400).

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the omission of origin servers from a server list when the origin server is no longer available. This benefits the system by stopping clients from trying to access unavailable servers and wasting computing time and network bandwidth.

18. Regarding claim 3, Although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention, it fails to disclose means

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wherein the list of origin servers contains some origin servers that have no content objects stored in the content exchange.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching in a network wherein the list of origin servers contains some origin servers that have no content objects stored in the content exchange (figure 4). Note that the information sources notify the central processor when they come online regardless of their content.

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the inclusion of servers in the origin server list even if no content data is stored from those servers. This benefits the system by allowing information on frequently used servers to be saved even if no recent downloads have resulted in content being stored.

19. Regarding claims 4 and 11, although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention (as applied to claims 1 and 9, respectively), it fails to disclose means wherein content objects associated with a particular origin server are removed from the content store when a determination is made that the particular origin server is no longer available.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching on a network wherein content objects associated with a particular origin server are removed from the content store when a determination is made that the particular origin server is no longer available (figure 4, element 400).

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the removal of a content object from the content store when the origin server is unavailable. This benefits the system by ensuring that users do not access old information from a closed site that is no longer correct or available.

20. Regarding claim 9, Gurijala et al. (USPN 6,601,090) teach a content storing system for caching content objects comprising:

- a. A first content exchange (figure 1).
- b. A second content exchange (figure 1).
- c. A content bus coupled to the first and second content exchanges (figure 1) wherein:
- d. The first content exchange comprises an origin server database comprising a list of origin servers associated with the first content exchange (column 5, lines 42-50; column 6, lines 36-39).

Although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention, it fails to disclose means wherein the list of origin servers contains a plurality of origin servers that have no content objects stored in the first content exchange.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching in a network wherein the list of origin servers contains a plurality of origin servers that have no content objects stored in the first content exchange (figure 4). Note that the information sources notify the central processor when they come online regardless of their content.

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the inclusion of servers in the origin server list even if no content data is stored from those servers. This benefits the system by allowing information on frequently used servers to be saved even if no recent downloads have resulted in content being stored.

21. Regarding claim 12, Gurijala et al. (USPN 6,601,090) teaches all the limitations as applied to claim 9. They further teach means wherein:

- a. The second content exchange is divided into a first section and a second section (column 6, lines 4-15, 50-62). Note that the content store may have any number of logical separations for maintaining data.
- b. The first section comprises a cache where less frequently requested content objects are purged in favor of more frequently requested content objects (column 6, lines 4-15, 50-62).

- c. The second section comprises a file system where content objects remain stored in the content store for a period of time regardless of request frequency (column 6, lines 4-15, 50-62).

22. Regarding claim 13, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 9. They further teach means wherein the content bus transports a requested object not presently retained in the first content exchange from the second content exchange (column 7, lines 5-17).

23. Regarding claim 14, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 9. They further teach a content controller, wherein the content bus transports a requested content object not presently retained in the first content exchange from one of the second content exchange and an origin server (column 5, lines 25-40; column 7, lines 5-17).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see the following:

- a. Tewari et al. (1998)
- b. Kangasharju et al. (1999)
- c. Srbljic (USPN 5,933,849)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (703)306-0543. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703)305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksp

Kevin Parton
Examiner
Art Unit 2153



FRANTZ B. JEAN
PRIMARY EXAMINER